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EXAMINER	
QUINONES, ISMAEL C	

ART UNIT	PAPER NUMBER
2686	3

DATE MAILED: 09/28/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/995,096	TUUTIJARVI, MIKA	
	Examiner	Art Unit	
	Ismael Quiñones	2686	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *27 November 2001*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-9* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-9* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date 2.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Information Disclosure Statement

1. The information disclosure statement (IDS) submitted on February 8th, 2002 has being considered by the examiner and made of record in the application file.

Priority

2. Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d), which papers have been placed of record in the file.

Claim Objections

3. **Claim 5** is objected to because of the following informalities:

Claim 5 depends upon claim 1, the narrow limitations disclosed under claim 5 are already disclosed under claim 1; claim 5 should depend upon claim 2, which is a broader description of the invention, thus claim 5 will be examined as dependent upon claim 2. Appropriate correction is required.

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

5. The factual inquiries set forth in *Graham* **v.** *John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

6. **Claim 1** is rejected under 35 U.S.C. 103(a) as being unpatentable over the combination of Ishi (U.S Pat. No. 5,867,786) and Kobylinski et al. (U.S Pat. No. 6,044,272) in view of Raith et al. (U.S Pat. No. 6,028,854), further in view of IBM Technical Disclosure Bulletin (TDB-Acc-No. NN9108386), even further in view of Kangras et al. (U.S. P.G.-Pub. No. 2002/0016172).

Regarding **claim 1,** Ishi discloses a system for monitoring transmission carriers, comprising: a mobile unit (*item 2; Fig. 8*) receiving a command from a serving base station (*zone f_A*) through a control channel to monitor the carriers from peripheral zones or neighboring service cells adjacent to the serving station (*col. 9, lines 58-63; Fig. 14*), wherein a base station is assigned to each cell (*col. 3, lines 39-50*), receiving the transmissions and measuring the field of strength magnitude from those transmissions, furthermore making a determination to perform channel switching or zone shifting ("handoff") (*col. 5, lines 13-26*), in the process of the aforesaid determination verifying if the carrier transmissions from the neighboring service cells are true carriers or corresponding carrier transmissions (*col. 5, lines 39-50*), the process comprising the steps of detecting and comparing data such as a color code in a speech or traffic channel (*col.*

9, lines 12-16; Fig. 7) transmitted by a received carrier with one color code previously stored in the mobile unit, subsequently if a match is found between both color codes, the authenticity of the received carrier is established (*col. 5, lines 59-64; col. 6, lines 34-42; col. 8, lines 24-30 and lines 46-51; col. 9, line 58 thru col. 10, line 7*). Furthermore, Ishi discloses the incorporation of a traffic channel (speech channel) for handling speech data (*col. 9, lines 12-27*), receiving from a base station (i.e. a base station from a peripheral zone) the digital traffic channel time slot (*Fig. 7*) and switching channels (i.e. when handoff occurs, TCH, FACCH). Ishi fails to clearly specify the received traffic channel time slot on the same frequency with a control channel, decoding a Coded Digital Voice Color Code (CDVCC) in the DTC to obtain a DVCC, and wherein measuring comprises an Enhanced Observed Time Difference (E-OTD) measurement, and associating the channel structure or information (DVCC, channel number and hyperband information) with said measurement that is transmitted to a Serving Mobile Location Center (SLMC).

In the same field of endeavor, Kobylinski et al. disclose a system and method for improved mobile assisted handoff, wherein a mobile station receives measurements orders from a serving base station, subsequently making received signal strength (RSS) measurements according to the measurements order (*col. 4, lines 39-52*), reading and decoding a coded DVCC (CDVCC) to identify candidate channels for handoff (*col. 4, lines 52-67*), reporting back to said serving station for performing handoff, and subsequently the serving base station and a mobile switching center (MSC) making a determination for handoff (*col. 5, lines 3-11*). Kobylinski et al. suggest wherein a DCCH

and a DTC are in the same frequency (IS-136 standard; *col. 1, lines 1-32; col. 3, lines 59-64*).

Therefore it would have been obvious to one with ordinary skill in the art at the time the invention was made to have Ishi system for monitoring transmission carriers to include a Coded Digital Voice Color Code in a Digital Channel structure for IS-136 systems as taught by Kobylinkski et al. for the purpose of identifying the most appropriate base stations and accurately perform handoffs.

Ishi in view of Kobylinski et al. fail to clearly specify wherein measuring comprises an Enhanced Observed Time Difference (E-OTD) measurement, and associating the channel structure or information (DVCC, channel number and hyperband information) with said measurement.

In the same field of endeavor Raith et al. disclose a TDMA environment (IS-136) that defines a digital traffic channel DTC slot format comprising a cell identifier that identifies a base station such as a Coded Digital Verification Code (CDVCC) and a pointer used for indicating on which frequency or set of frequencies a digital control channel is more likely to be found (Coded Digital Control Channel Locator (CDL)) (*col. 4, line 47 thru col. 5, line 3*). Furthermore Raith et al. disclose wherein both traffic and control channels share the same radio carrier frequency (*col. 4, lines 8-12*).

Therefore it would have been obvious to one with ordinary skill in the art at the time the invention was made to have Ishi in view of Kobylinkski et al. system for monitoring transmission carriers and accurately performing handoff to have control and traffic channels sharing the same radio carrier frequency as taught by Raith et al. for the

purpose of improving efficiency, hardware costs and allowing flexible use of the radio spectrum.

The combination of Ishi and Kobylinski et al. in view of Raith et al. fail to clearly specify wherein measuring comprises an Enhanced Observed Time Difference (E-OTD) measurement, and associating the channel structure or information (DVCC, channel number and hyperband information) with said measurement.

In the same field of endeavor, IBM Technical Disclosure Bulletin NN9108386 discloses for determining location, wherein digital control channels transmit digital information comprises a "Data Color Code" for differentiating data, furthermore said "Data Color Code" and the frequency of the transmission are utilized or associated for determining the location of a transmitter (*Page 2, lines 7-14*) with location based techniques based techniques such as triangulation (*Pages 1, line 28 thru Page 2, line 7*).

Therefore it would have been obvious to one with ordinary skill in the art at the time the invention was made to have the combination of Ishi and Kobylinski et al. in view of Raith et al. system for monitoring transmission carriers and accurately performing handoff to have location based techniques associated with time slot information as taught by article NN9108386 for the purpose of accurately determining the position of transmitters.

The combination of Ishi and Kobylinski et al. in view of Raith et al., further in view of article NN9108386 fail to clearly specify wherein the location measurement is an Enhanced Observed Time Difference (E-OTD) measurement.

In the same field of endeavor, Kangras et al. disclose mobile station position methods such as the Enhanced-Observed Time Difference (E-OTD) method, based on measuring the time-of-arrival (TOA) of bursts transmitted from a BS on its broadcast control channel (BCCH) carrier (*Page 1, Paragraph 3*).

Therefore it would have been obvious to one with ordinary skill in the art at the time the invention was made to have the combination of Ishi and Kobylinski et al. in view of Raith et al., further in view of article NN9108386 system for monitoring transmission carriers and accurately performing handoff associated with location based techniques associated with time slot information to perform location determining such as Enhanced-Observed Time Difference as taught by Kangras et al. for the purpose of obtaining location from both the mobile station and the base station in a synchronized wireless communication system.

7. **Claims 2 and 6** are rejected under 35 U.S.C. 103(a) as being unpatentable over the combination of Ishi (U.S Pat. No. 5,867,786) in view of Raith et al. (U.S Pat. No. 6,028,854).

Regarding **claim 2**, Ishi discloses a method for making measurements of neighbor base stations with a mobile station, comprising steps of receiving transmissions of neighbor or peripheral base stations or a command for monitoring the peripheral base stations (*col. 3, lines 59-65; col. 9, lines 58-63*), the transmissions including information for identifying at least one neighbor base station that transmits a frequency channel to be measured (Color Code; *col. 8, lines 24-30; Fig. 4*); tuning to a frequency channel transmitted by the neighbor base station (Monitoring the carriers of the peripheral base

stations; *col. 5, lines 39-44*), the frequency channel containing a control channel used for making a measurement (*col. 9, lines 4-6; Fig. 4*); verifying that the frequency channel is a correct frequency channel transmitted by the neighbor base station to be measured (Verifying the existence of significant data in a control channel to identify a carrier transmission; *col. 5, lines 52-54*); receiving a traffic channel (*col. 9, lines 14-21*) and extracting from the received traffic channel certain information that can be used to identify the base station that transmits the traffic channel (*Color Code; Fig. 7*); comparing the extracted information with the information for identifying a neighbor base station that was received in the measurement list or command for monitoring peripheral base stations to ensure that the correct frequency channel is being received (detecting and comparing data such as a color code in a speech or traffic channel transmitted by a received carrier with one color code previously stored in the mobile unit, subsequently if a match is found between both color codes, the authenticity of the received carrier is established; *col. 5, lines 39-50 and lines 59-64; col. 6, lines 34-42; col. 8, lines 24-30 and lines 46-51 col. 9, lines 12-16; col. 9, line 58 thru col. 10, line 7; Fig. 7*); and associating the extracted information with the result of the measurement (Associating the extracted data for verifying carrier transmission with and a received electric field strength measurement for appropriately switching to a channel; *col. 5, lines 27-50; col. 10, line 9 thru col. 11, line 13*). Ishi fails to clearly specify receiving a traffic channel that is on the same frequency channel.

In the same field of endeavor Raith et al. disclose a TDMA environment (IS-136) that defines a digital traffic channel DTC slot format comprising a cell identifier that

identifies a base station such as a Coded Digital Verification Code (CDVCC) and a pointer used for indicating on which frequency or set of frequencies a digital control channel is more likely to be found (Coded Digital Control Channel Locator (CDL)) (*col. 4, line 47 thru col. 5, line 3*). Furthermore Raith et al. disclose wherein both traffic and control channels share the same radio carrier frequency (*col. 4, lines 8-12*).

Therefore it would have been obvious to one with ordinary skill in the art at the time the invention was made to have Ishi system for monitoring transmission carriers to have control and traffic channels sharing the same radio carrier frequency as taught by Raith et al. for the purpose of improving efficiency, hardware costs and allowing flexible use of the radio spectrum.

Regarding **claim 6**, Ishi discloses a mobile station comprising an RF transceiver having an RF transmitter and an RF receiver (*Fig. 1, item 15; Fig. 2, items 21 and 22*), said mobile station further comprising a controller coupled to the RF transceiver and being programmed for making measurements of neighbor base stations (*Fig. 1, items 15-18; Fig. 2, item 25*), said controller being programmed to (a) receiving a command for measuring or monitoring the carriers from peripheral base stations from a serving base station (*col. 9, lines 57-65*), containing information for identifying at least one neighbor base station that transmits a frequency channel (*col. 9, lines 28-38*); (b) to tune said RF receiver to a frequency channel transmitted by the neighbor base station, the frequency channel containing a control channel used for making a measurement (*col. 10, line 9 thru col. 11, line 13*); (c) to verify that the frequency channel is a correct frequency channel transmitted by the neighbor base station to be measured by receiving a traffic channel

(*col. 9, lines 14-21*) and by extracting from the received traffic channel certain information that can be used to identify the base station that transmits the traffic channel (*Color Code; Fig. 7*); (d) to compare the extracted information with the information for identifying the at least one neighbor base station that was received in the measurement list to ensure that the correct frequency channel is being received (detecting and comparing data such as a color code in a speech or traffic channel transmitted by a received carrier with one color code previously stored in the mobile unit, subsequently if a match is found between both color codes, the authenticity of the received carrier is established; *col. 5, lines 39-50 and lines 59-64; col. 6, lines 34-42; col. 8, lines 24-30 and lines 46-51 col. 9, lines 12-16; col. 9, line 58 thru col. 10, line 7; Fig. 7*); and (e) to associate the extracted information with the result of a measurement (Associating the extracted data for verifying carrier transmission with and a received electric field strength measurement for appropriately switching to a channel; *col. 5, lines 27-50; col. 10, line 9 thru col. 11, line 13*). Ishi fails to clearly specify receiving a traffic channel that is on the same frequency channel.

In the same field of endeavor Raith et al. disclose a TDMA environment (IS-136) that defines a digital traffic channel DTC slot format comprising a cell identifier that identifies a base station such as a Coded Digital Verification Code (CDVCC) and a pointer used for indicating on which frequency or set of frequencies a digital control channel is more likely to be found (Coded Digital Control Channel Locator (CDL)) (*col. 4, line 47 thru col. 5, line 3*). Furthermore Raith et al. disclose wherein both traffic and control channels share the same radio carrier frequency (*col. 4, lines 8-12*).

Therefore it would have been obvious to one with ordinary skill in the art at the time the invention was made to have Ishi system for monitoring transmission carriers to have control and traffic channels sharing the same radio carrier frequency as taught by Raith et al. for the purpose of improving efficiency, hardware costs and allowing flexible use of the radio spectrum.

8. **Claims 3 and 7** are rejected under 35 U.S.C. 103(a) as being unpatentable over the Ishi (U.S Pat. No. 5,867,786) in view of Raith et al. (U.S Pat. No. 6,028,854), further in view of Kangras et al. (U.S. P.G.-Pub. No. 2002/0016172).

Regarding **claim 3**, and as applied to claim 2, Ishi in view of Raith et al. disclose the aforementioned method. Ishi in view of Raith et al. fail to clearly specify wherein the measurement is an Enhanced Observed Time Difference (E-OTD) measurement.

In the same field of endeavor, Kangras et al. disclose mobile station position methods such as the Enhanced-Observed Time Difference (E-OTD) method, based on measuring the time-of-arrival (TOA) of bursts transmitted from a BS on its broadcast control channel (BCCH) carrier (*Page 1, Paragraph 3*).

Therefore it would have been obvious to one with ordinary skill in the art at the time the invention was made to have Ishi in view of Raith et al. system for monitoring transmission carriers and accurately performing handoff to perform location determining such as Enhanced-Observed Time Difference as taught by Kangras et al. for the purpose of obtaining location from both the mobile station and the base station in a synchronized wireless communication system.

Regarding **claim 7**, and as applied to claim 6, Ishi in view of Raith et al. disclose the aforementioned mobile station. Ishi in view of Raith et al. fail to clearly specify wherein the measurement is an Enhanced Observed Time Difference (E-OTD) measurement.

In the same field of endeavor, Kangras et al. disclose mobile station position methods such as the Enhanced-Observed Time Difference (E-OTD) method, based on measuring the time-of-arrival (TOA) of bursts transmitted from a BS on its broadcast control channel (BCCH) carrier (*Page 1, Paragraph 3*).

Therefore it would have been obvious to one with ordinary skill in the art at the time the invention was made to have Ishi in view of Raith et al. system for monitoring transmission carriers and accurately performing handoff to perform location determining such as Enhanced-Observed Time Difference as taught by Kangras et al. for the purpose of obtaining location from both the mobile station and the base station in a synchronized wireless communication system.

9. **Claims 4 and 8** are rejected under 35 U.S.C. 103(a) as being unpatentable over Ishi (U.S Pat. No. 5,867,786) in view of Raith et al. (U.S Pat. No. 6,028,854), further in view of Kobylinski et al. (U.S Pat. No. 6,044,272).

Regarding **claim 4**, and as applied to claim 2, Ishi in view of Raith et al. disclose the aforementioned method. In addition Raith et al. disclose wherein the information is comprised of a Digital Voice Color Code (DVCC) (*Figs. 3A and 3B, CDVCC*), and a Digital Traffic Channel (DTC) that is in the same RF channel with a Digital Control

Channel (DCCH) used for the measurement (Both traffic and control channels share the same radio carrier frequency; *col. 4, lines 8-12 and lines 18-21*). Ishi in view of Raith et al. fail to clearly specify the step of decoding a Coded Digital Voice Color Code (CDVCC) field that comprises a part of a Digital Traffic Channel (DTC).

In the same field of endeavor, Kobylinski et al. disclose a system and method for improved mobile assisted handoff, wherein a mobile station receives measurements orders from a serving base station, subsequently making received signal strength (RSS) measurements according to the measurements order (*col. 4, lines 39-52*), reading and decoding a coded DVCC (CDVCC) to identify candidate channels for handoff (*col. 4, lines 52-67*).

Therefore it would have been obvious to one with ordinary skill in the art at the time the invention was made to have Ishi in view of Raith et al. system for monitoring transmission carriers and accurately performing handoff to include a Coded Digital Voice Color Code in a Digital Channel structure for IS-136 systems as taught by Kobylinkski et al. for the purpose of identifying the most appropriate base stations and accurately perform handoffs.

Regarding **claim 7**, and as applied to claim 6, Ishi in view of Raith et al. disclose the aforementioned mobile station. In addition Raith et al. disclose wherein the information is comprised of a Digital Voice Color Code (DVCC) (*Figs. 3A and 3B, CDVCC*), and a Digital Traffic Channel (DTC) that is in the same RF channel with a Digital Control Channel (DCCH) used for the measurement (Both traffic and control channels share the same radio carrier frequency; *col. 4, lines 8-12 and lines 18-21*). Ishi

in view of Raith et al. fail to clearly specify the step of decoding a Coded Digital Voice Color Code (CDVCC) field that comprises a part of a Digital Traffic Channel (DTC).

In the same field of endeavor, Kobylinski et al. disclose a system and method for improved mobile assisted handoff, wherein a mobile station receives measurements orders from a serving base station, subsequently making received signal strength (RSS) measurements according to the measurements order (*col. 4, lines 39-52*), reading and decoding a coded DVCC (CDVCC) to identify candidate channels for handoff (*col. 4, lines 52-67*).

Therefore it would have been obvious to one with ordinary skill in the art at the time the invention was made to have Ishi in view of Raith et al. system for monitoring transmission carriers and accurately performing handoff to include a Coded Digital Voice Color Code in a Digital Channel structure for IS-136 systems as taught by Kobylinkski et al. for the purpose of identifying the most appropriate base stations and accurately perform handoffs.

10. **Claims 5 and 9** are rejected under 35 U.S.C. 103(a) as being unpatentable over the combination of Ishi (U.S Pat. No. 5,867,786) and Raith et al. (U.S Pat. No. 6,028,854) in view of Kobylinski et al. (U.S Pat. No. 6,044,272), further in view of IBM Technical Disclosure Bulletin (TDB-Acc-No. NN9108386), even further in view of Kangras et al. (U.S. P.G.-Pub. No. 2002/0016172).

Regarding **claim 5**, and as applied to claim 2, Ishi in view of Raith et al. disclose the aforementioned method, wherein the information is comprised of a Digital Voice

Color Code (DVCC) and a Digital Traffic Channel (DTC) that is in the same RF channel with a Digital Control Channel (DCCH). Ishi in view of Raith fail to clearly specify), and where said controller, when extracting said certain information, decodes a Coded Digital Voice Color Code (CDVCC) field that comprises a part of a Digital Traffic Channel (DTC) where said controller, when associating the extracted information with the result of a measurement, includes a channel number, a hyperband and the DVCC with the result of the E-OTD measurement that is reported to a wireless network from a mobile station.

In the same field of endeavor, Kobylinski et al. disclose a system and method for improved mobile assisted handoff, wherein a mobile station receives measurements orders from a serving base station, subsequently making received signal strength (RSS) measurements according to the measurements order (*col. 4, lines 39-52*), reading and decoding a coded DVCC (CDVCC) to identify candidate channels for handoff (*col. 4, lines 52-67*), and reporting the candidate channel measurements to a mobile switching center (MSC) (*col. 5, lines 3-9*).

Therefore it would have been obvious to one with ordinary skill in the art at the time the invention was made to have Ishi in view of Raith et al. system for monitoring transmission carriers and accurately performing handoff to include a Coded Digital Voice Color Code in a Digital Channel structure for IS-136 systems as taught by Kobylinkski et al. for the purpose of identifying the most appropriate base stations and accurately perform handoffs.

The combination of Ishi and Raith in view of Kobylinkski et al. fail to clearly specify wherein measuring comprises an Enhanced Observed Time Difference (E-OTD)

measurement, and associating the channel structure or information (DVCC, channel number and hyperband information) with said measurement.

In the same field of endeavor, IBM Technical Disclosure Bulletin NN9108386 discloses for determining location, wherein digital control channels transmit digital information comprises a "Data Color Code" for differentiating data, furthermore said "Data Color Code" and the frequency of the transmission are utilized or associated for determining the location of a transmitter (*Page 2, lines 7-14*) with location based techniques based techniques such as triangulation (*Pages 1, line 28 thru Page 2, line 7*).

Therefore it would have been obvious to one with ordinary skill in the art at the time the invention was made to have the combination of Ishi and Raith in view of Kobylinkski et al. system for monitoring transmission carriers and accurately performing handoff to have location based techniques associated with time slot information as taught by article NN9108386 for the purpose of accurately determining the position of transmitters.

The combination of Ishi and Raith in view of Kobylinkski et al., further in view article NN9108386 fail to clearly specify wherein the location measurement is an Enhanced Observed Time Difference (E-OTD) measurement.

In the same field of endeavor, Kangras et al. disclose mobile station position methods such as the Enhanced-Observed Time Difference (E-OTD) method, based on measuring the time-of-arrival (TOA) of bursts transmitted from a BS on its broadcast control channel (BCCH) carrier (*Page 1, Paragraph 3*).

Therefore it would have been obvious to one with ordinary skill in the art at the time the invention was made to have the combination of Ishi and Raith in view of Kobylinkski et al., further in view article NN9108386 system for monitoring transmission carriers and accurately performing handoff associated with location based techniques associated with time slot information to perform location determining such as Enhanced-Observed Time Difference as taught by Kangras et al. for the purpose of obtaining location from both the mobile station and the base station in a synchronized wireless communication system.

Regarding **claim 9**, and as applied to claim 6, Ishi in view of Raith et al. disclose the aforementioned mobile station wherein the information is comprised of a Digital Voice Color Code (DVCC) and a Digital Traffic Channel (DTC) that is in the same RF channel with a Digital Control Channel (DCCH). Ishi in view of Raith fail to clearly specify), and where said controller, when extracting said certain information, decodes a Coded Digital Voice Color Code (CDVCC) field that comprises a part of a Digital Traffic Channel (DTC) where said controller, when associating the extracted information with the result of a measurement, includes a channel number, a hyperband and the DVCC with the result of the E-OTD, and reports the result of the measurement by transmitting the result through said RF transmitter.

In the same field of endeavor, Kobylinski et al. disclose a system and method for improved mobile assisted handoff, wherein a mobile station receives measurements orders from a serving base station, subsequently making received signal strength (RSS) measurements according to the measurements order (*col. 4, lines 39-52*), reading and

decoding a coded DVCC (CDVCC) to identify candidate channels for handoff (*col. 4, lines 52-67*).

Therefore it would have been obvious to one with ordinary skill in the art at the time the invention was made to have Ishi in view of Raith et al. system for monitoring transmission carriers and accurately performing handoff to include a Coded Digital Voice Color Code in a Digital Channel structure for IS-136 systems as taught by Kobylinkski et al. for the purpose of identifying the most appropriate base stations and accurately perform handoffs.

The combination of Ishi and Raith in view of Kobylinkski et al. fail to clearly specify wherein measuring comprises an Enhanced Observed Time Difference (E-OTD) measurement, and associating the channel structure or information (DVCC, channel number and hyperband information) with said measurement.

In the same field of endeavor, IBM Technical Disclosure Bulletin NN9108386 discloses for determining location, wherein digital control channels transmit digital information comprises a "Data Color Code" for differentiating data, furthermore said "Data Color Code" and the frequency of the transmission are utilized or associated for determining the location of a transmitter (*Page 2, lines 7-14*) with location based techniques based techniques such as triangulation (*Pages 1, line 28 thru Page 2, line 7*).

Therefore it would have been obvious to one with ordinary skill in the art at the time the invention was made to have the combination of Ishi and Raith in view of Kobylinkski et al. system for monitoring transmission carriers and accurately performing handoff to have location based techniques associated with time slot information as taught

by article NN9108386 for the purpose of accurately determining the position of transmitters.

The combination of Ishi and Raith in view of Kobylinkski et al., further in view article NN9108386 fail to clearly specify wherein the location measurement is an Enhanced Observed Time Difference (E-OTD) measurement.

In the same field of endeavor, Kangras et al. disclose mobile station position methods such as the Enhanced-Observed Time Difference (E-OTD) method, based on measuring the time-of-arrival (TOA) of bursts transmitted from a BS on its broadcast control channel (BCCH) carrier (*Page 1, Paragraph 3*).

Therefore it would have been obvious to one with ordinary skill in the art at the time the invention was made to have the combination of Ishi and Raith in view of Kobylinkski et al., further in view article NN9108386 system for monitoring transmission carriers and accurately performing handoff associated with location based techniques associated with time slot information to perform location determining such as Enhanced-Observed Time Difference as taught by Kangras et al. for the purpose of obtaining location from both the mobile station and the base station in a synchronized wireless communication system.

Conclusion

11. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

a. Sawyer et al. (U.S. Pat. No. 5,915,221), Neighbor Cell List Creation and Verification in a Telecommunication System.

b. Hulsebosch (U.S. Pat. No. 5,285,447), Target Channel Verification in a Radiotelephone System.

c. Kobylinski et al. (U.S. Pat. No. 6,694,138), Mobile Assisted Handoff System and Method.

d. Durfor (U.S. Pat. No. 5,613,205), System and Method of Locating a Mobile Terminal within the Service Area of a Cellular Telecommunication System.

12. Any response to this Office Action should be **faxed to** (703) 872-9306 or **mailed to:**

Commissioner of Patents and Trademarks

P.O. Box 1450

Alexandria, VA 22313-1450

Hand-delivered responses should be brought to

Crystal Park II

2021 Crystal Drive

Arlington, VA 22202

Sixth Floor (Receptionist)

13. Any inquiry concerning this communication on earlier communications from the Examiner should be directed to Ismael Quiñones whose telephone number is (703) 305-8997. The Examiner can normally be reached on Monday-Friday from 8:00am to 5:00pm.

14. If attempts to reach the Examiner by telephone are unsuccessful, the Examiner's supervisor, Marsha D. Banks-Harold can be reached on (703) 305-4379, and fax number is (703) 746-9818. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9301..

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose number is (703) 305-4700 or call customer service at (703) 306-0377.

Ismael Quiñones

I.Q.

September 14, 2004

RAFAEL PEREZ-GUTIERREZ
PATENT EXAMINER
9/20/04